



# Construction & Materials Tips

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## ***Quality Monitoring Programs & Material Producer Lists***

This document is provided for information only and is not to be used for bidding or contract purposes.

Quality Monitoring (QM) programs and associated Material Producer Lists (MPL's) are one way CST manages quality assurance for materials. Some materials are highly variable, have very limited shelf lives, or are supplied on an irregular basis. These materials are not good candidates for QM and MPL's. Materials that are consistent, have long shelf lives, and are used regularly are good candidates for TxDOT to use QM and MPL's.

TxDOT develops QM programs for specific products and industries. QM programs generally require the supplier to have a quality control program in routine use to monitor their production and ensure materials meet specification requirements. TxDOT performs periodic inspection or testing to ensure the supplier maintains their quality control (QC). Manufacturers adhering to the requirements of a QM program are listed in the appropriate MPL maintained by the Department. The products and producers on these MPL's may require little or no TxDOT sampling from the project.

QM materials generally represent a win-win situation for the manufacturer and TxDOT. TxDOT is assured of receiving products that consistently meet specification requirements with a lesser testing burden. The manufacturer is rewarded with the ability to supply customers with products with little or no additional testing required before incorporation into construction and a lesser need to keep high volumes of inventory on hand.

CST developed and maintains a spreadsheet (see Attachment, pg. 4, "Approved List, QM and Warehouse Products") for QM/MPL materials which includes:

- ◆ products covered by MPL's
- ◆ Departmental Materials Specification (DMS) or test procedure describing the requirements of that material or QM program (for example, DMS-8111 or Tex-499-A)
- ◆ standard items from 2004 Specification Book referencing that material (example: Item 302)
- ◆ a description of actions an inspector may need to take, and
- ◆ references to all MPL hyperlinks.

In all cases, if material quality is suspect or damage is visible from shipping, TxDOT has the right to sample (including MPL materials), test, and reject any materials that do not meet specification requirements. This is true even if the product has been tested and shown to meet specifications at some other time after manufacture or during storage.

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If you have any questions, please contact Darren Hazlett, P.E., Asphalt, Chemical, and Traffic Materials Branch Manager at 512/506-5816. ■

## Approved List, QM and Warehouse Products

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### Definitions

**Approved manufacturer:** An approved manufacturer/producer has shown compliance to TxDOT specification as having an acceptable quality control program.

**Approved material:** Material that has met preliminary testing requirements according to material specification associated with a quality monitoring program. Further evaluation and testing may be necessary.

**Catalogue:** A list of aggregates to update the rated source statistical values for the quality tests covered by the Aggregate Quality Monitoring Program. Materials with published values meeting the minimum requirements of the project specifications do not require additional testing.

**Department Material Specification (DMS):** A specification describing a material's characteristics or describing the quality monitoring program for a material.

**Material Producer List (MPL):** A list published by TxDOT showing approved or rated materials, approved or rated manufacturers/producers, prequalified manufacturer/materials, or approved warehouses detailing where materials may be or must be obtained.

**Prequalified materials:** Manufacturers/Materials that meet TxDOT specification requirements and are placed under a quality monitoring program. Program may include frequency of sampling and testing.

**Pre tested material:** A material that has been evaluated against a particular specification to verify its conformance. Further testing is not necessary. Usually associated with warehoused materials.

**Quality Monitoring Program (QM):** A TxDOT program where materials are submitted on a periodic basis for testing and verification of specification compliance. Manufacturers/Producers are required to have a quality control plan and may be subject to audit or inspection. The result is usually that the manufacturer/producer becomes an "approved manufacturer/producer."

**Warehouses:** Suppliers or distributors that have a contract with TxDOT to store a pre-tested minimum quantity of material for TxDOT use only. This stock is evaluated when the quantity of material proposed for TxDOT use meets the minimum quantity of material eligible for inspection, as stated in the [warehousing agreement](#).

### Disclaimer

Article 6.4 (pg. 39) of the [TxDOT Standard Specifications 2004](#), "Sampling, Testing, and Inspection" states: "All materials used are subject to inspection or testing at any time during preparation or use. Materials which have been tested and approved at a supply source or staging area may be re-inspected or tested before or during incorporation into the work, and rejected if it does not meet contract requirements."

## Approved List, QM and Warehouse Products

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Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Aggregates for ACP and Surface Treatments	Item 302 Item 340 Item 341 Item 342 Item 344 Item 346 Tex-499-A	Aggregates with published values in the MPL meeting product requirements need no further testing. Sources not on MPL require project sampling and testing before use.	<a href="#">brs qc.pdf</a>	-	AQMP
Aggregates for Concrete	Item 421 Tex-499-A	Aggregates with published values in the MPL meeting product requirements need no further testing. Sources not on MPL require project sampling and testing before use.	<a href="#">crs qc.pdf</a>	-	AQMP
Anti-Graffiti Coatings	DMS-8111 Item 427 Item 740	DMS contains material specification and material producer list requirements. Only materials on MPL list can be used.	<a href="#">antigraf.pdf</a>	-	Prequalified Material
Asphalt Release Agents	Item 330 Item 334 Item 340 Item 341 Item 342 Item 344 Item 346 Tex-239-F	Only materials on MPL list can be used.	<a href="#">asphrel.pdf</a>	-	Prequalified Material
Bituminous Marker Adhesive	DMS-6130 Tex-538-C	DMS-6130 describes material properties. Tex-538-C describes QM program. Materials on MPL do not need testing unless material quality is questioned. Materials not on list need job sample.	<a href="#">bitmark.pdf</a>	-	QM - 6 month renew
Cement	Item 421 DMS-4600	Only materials on MPL list can be used, unless other arrangements are made with CST.	<a href="#">cement.pdf</a>	-	Approved Manufacturer
Composite Material Blocks and Posts for Metal Beam Guard Fence	DMS-7210 Item 540	DMS contains material specification and material producer list requirements. Only materials on MPL list can be used.	<a href="#">blocks.pdf</a>	-	Approved Manufacturer
Concrete Admixtures	Item 421 DMS-4640	Only admixtures on the MPL may be used.	<a href="#">admixtur.pdf</a>	-	Prequalified Material
Conduit	Item 618 DMS-11030	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Duct Cable	Item 622 DMS-11060	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Elastomeric Bearings	Item 434	Only suppliers on MPL list can be used.	<a href="#">elasbrng.pdf</a>	-	Suppliers prequalified every 2 years.
Elastomeric Concrete	Item 454 DMS-6140	DMS-6140 describes material properties and QM program. If material is listed on MPL and manufactured between tested and expires dates with current lab number, no additional testing is needed unless material quality is questioned. Materials not on list need job sample.	<a href="#">elasconc.pdf</a>	-	QM - 6 month renew
Electrical Conductors	Item 620 DMS-11040	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Electrical Services	Item 628 DMS-11080	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Electrodes and Flux-Electrode Combinations	Item 441 Item 448	Only materials and combinations on the MPL may be used. Check expiration date.	<a href="#">electrod.pdf</a>	-	Prequalified Material. Check MPL to make sure materials meet expiration date.
Epoxy and Adhesives	Item 360 Item 361 Item 420 Item 425 Item 429 Item 780 Item 784 DMS-6100 DMS-6110	DMS-6100 describes material properties. DMS-6110 describes QM program. Materials on MPL do not need testing unless material quality is questioned. Materials not on list need job sample.	<a href="#">epxyadh.pdf</a>	-	QM - 6 month renew
Epoxy Applicators for Reinforcing Steel	Item 440 DMS-7330	Only applicators listed on the MPL may supply epoxy coated reinforcing steel	<a href="#">epoxyaps.pdf</a>	-	Approved Manufacturer Producers must prequalify every year and be subject to random visits by CST.

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Evaporation Retardants	Item 420 Item 424 Item 425 Item 360 DMS-4650	Only suppliers on MPL list can be used.	<a href="#">evapret.pdf</a>	-	Prequalified Material
<b>Flasher Controller Assembly</b>	Item 680 Item 685 DMS-11160	Only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">flashcapre.pdf</a>	-	Prequalified Material
Flexible Delineator and Object Marker Posts	Item 658 DMS-4400	Only suppliers on MPL list can be used.	<a href="#">fixdelin.pdf</a>	-	Prequalified Material
Fly Ash Sources	Base Treatment: Item 265 DMS-4615  Concrete: Item 421 DMS-4610	Approved Manufacturer. Only suppliers on the MPL may be used. No job samples required unless material quality is questioned.	<a href="#">flyash.pdf</a>	-	Approved Manufacturer, with testing and samples required from producer. Testing by CST.
Green Epoxy Resin Powder Sources	DMS-8130 Item 440	Only suppliers on MPL list can be used.	<a href="#">grnepxy.pdf</a>	-	Prequalified Material
Ground Boxes	Item 624 DMS-11070	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Ground Granulated Blast-Furnace Slag	Item 421 DMS-4620	Approved Manufacturer. Only suppliers on the MPL may be used. No job samples required unless material quality is questioned.	<a href="#">ggbfs.pdf</a>	-	Approved Manufacturer, with testing and samples required from producer. Testing by CST.
Headlight Glare Screens	DMS-8610	Only suppliers on MPL list can be used.	<a href="#">glrescrn.pdf</a>	-	Approved Manufacturer
High Mast Light Fixtures	Item 613 Item 614 DMS-11020	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Highway Illumination Light Fixtures	Item 610 DMS-11010	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Hydraulic Cement Concrete Curing Materials and Evaporation Retardants	Item 360 Item 420 Item 424 Item 425 DMS-4650	Only materials listed in the MPL may be used. CST runs the QM/Warehouse program for curing materials, and no sampling is required for projects, unless material quality is suspect. Evaporation retardants are and approved material. Materials on the MPL require no testing unless material quality is suspect.	<a href="#">liqmbrn.pdf</a>	-	Curing materials are handled with a warehouse program with batches sampled and approved for stock. Evaporation retardants are and a prequalified material
Joint Sealers	Item 360 Item 420 Item 426 Item 430 Item 438 Item 454 DMS-6310 Tex-538-C	DMS-6310 describes material properties. QM program for Classes 1-8. No QM for Classes 9 and 10. Tex-538-C describes QM program. Materials on MPL (Classes 1-8) do not need testing unless material quality is questioned. Materials not on list need job sample.	<a href="#">jtsealrs.pdf</a>	-	QM - 6 month renew
Lighting Assemblies			<a href="#">ltasmbly.pdf</a>	-	
Lime	Item 260 Item 263 Item 265 DMS-6350 DMS-6330	DMS-6350 describes material properties. DMS-6330 describes QM program for Hydrated Lime and Quicklime. There is no QM program for Lime Slurry. Materials on MPL require 1 project sample per project. Materials not on the MPL require sampling (sent to CST for testing) according to the following: Hydrated Lime: 1 per 200 tons; Quicklime: 1 per 150 tone. Lime Slurry always requires 1 per 200 tons.	<a href="#">lime.pdf</a>	-	QM for Hydrated Lime and Quicklime. QM requires supplier data and testing of project samples to correlate to supplier tests.
Magnesium Chloride De-icers/Anti-icers	DMS-6400	Materials on MPL require no sampling and testing. Materials not on MPL require sampling and testing before use.	<a href="#">deicer.pdf</a>	-	Approved Manufacturer
Maintenance Paints	DMS-8000	Only materials on the MPL may be used. Material on MPL need no sampling or testing.	<a href="#">mntpaint.pdf</a>	-	Prequalified Material
Mechanical Couplers	Item 440 DMS-4510	DMS-4510 describes certification process and material requirements.	<a href="#">couplers.pdf</a>	-	Prequalified Material. Project samples are still required at a rate of 3 samples for a lot of up to 500.

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Metal Beam Guard Fence Rail Element Manufacturers	Item 540	Only producers on the MPL may supply. Jobsite requires inspection for shipping damage.	<a href="#">mbqf.pdf</a>	-	Approved Manufacturer
Multiple Piece Tie Bar Producers	Item 360	Materials on MPL require no sampling and testing. Materials not on MPL require sampling according to Tex-711-I.	<a href="#">tiebar.pdf</a>	-	Approved Manufacturer
Pavement Markers, Traffic Buttons, and Jiggle Bars	Item 662 Item 672 DMS-4100 DMS-4200 DMS-4300	Only materials listed in the MPL may be used. CST runs the QM/Warehouse program for this, and no sampling is required for projects, unless material quality is suspect.	<a href="#">pmtbjb.pdf</a>	Pretested materials from warehouse come with Daily report of shipment	QM/Warehousing
Pedestrian Signal Heads	Item 682 DMS-11130	Only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">To Be Determined</a>		Prequalified Material
Penetrating Concrete Surface Treatments	Item 428 DMS-8140	Only suppliers on MPL list can be used. Sample on job to confirm material has not changed from qualification sample.	<a href="#">pcst.pdf</a>	-	Prequalified Material
Permanent Prefabricated Pavement Markers	Item 662 Item 668 DMS-8240	Only materials listed in the MPL may be used. CST runs the QM/Warehouse program for this, and no sampling is required for projects, unless material quality is suspect.	<a href="#">permmark.pdf</a>	Pretested materials from warehouse come with Daily report of shipment	QM/Warehousing
Polymeric Materials for Patching Spalls in Concrete Pavement	Item 720 DMS-6170	DMS describes material properties and QM program. If supplier is on list with current tested and expires date, no project sampling is required unless material quality is suspect. Materials not current on list require project sample.	<a href="#">polyptch.pdf</a>	-	QM
Preformed Joint Sealers	DMS-6310	DMS describes materials. The MPL is an approved list with prequalification and one sample per project. New specs do not reference this material and only special plan notes or sheets will ever utilize this.	<a href="#">jtseals.pdf</a>	-	Approved Manufacturer
Reinforced Fabric Joint Underseal	Item 356 DMS-6260	DMS describes material properties and QM program. If supplier is on list with current tested and expires date, no project sampling is required unless material quality is suspect. Materials not current on list require project sample.	<a href="#">jtundrsl.pdf</a>	-	QM



Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Reinforcing Steel Mills	Item 440 DMS-7320	DMS to describe materials and MPL mechanism. Producers must be on MPL to supply material.	<a href="#">steelmil.pdf</a>	-	Approved Manufacturer
Rubber Asphalt Crack Sealer	Item 300 Tex-538-C	Tex-538-C describes QM program. Materials on MPL do not need testing unless material quality is questioned. Materials not on list need job sample.	<a href="#">rbckslr.pdf</a>	-	QM - 6 month renew
Seal of Testing Assurance Approved (STA) Labs	Item 160		<a href="#">compost.pdf</a>	-	This is an informational list of testing labs for providers and buyers of compost.
Sign Face Materials	DMS-8300 Item 634 Item 636	Approved Manufacturer. Job samples from sign shops from Structural inspection at fab shop. TxDOT purchases will require sample, but sign shops may use immediately. Problems will be addressed with supplier not TxDOT sign shops.	<a href="#">fitsrface.pdf</a>	-	Prequalified Material. Must prequalify to supply, but checks occur from job samples from fabricator.
Silt Fence, Filter Fabric, and Fabric Underseal	Item 356 Item 423 Item 506 Item 556 DMS-6200 DMS-6220 DMS-6230 DMS-6320	QM/certification described in DMS-6320. Other DMS's describe material properties. Producers on MPL supply based on certification. No project testing required unless material quality is suspect.	<a href="#">siltfnce.pdf</a>	-	Prequalified Material
Snowplowable Pavement Markers	Item 672 DMS-4210	Specific design and shape should be noted on the plans or be on the MPL. Job sample required to verify compliance.	<a href="#">alweathr.pdf</a>	-	Approved Manufacturer
Solar Power Flasher Controller Assembly	Item 685 DMS-11150	Only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">solarflashpre.pdf</a>	=	Prequalified Material
Steel and Iron Items	Materials Inspection Guide	List describes documentation required to satisfy Buy America for different steel and iron items.	<a href="#">stiron.pdf</a>	-	Courtesy list for Buy America requirements.

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Steel Strand, Uncoated Seven-Wire Stress-Relieved and Low Relaxation for Prestress Concrete	Item 426 DMS-4500 TEX-741-I	DMS-4500 describes requirements of QM program. Producers must be on MPL to supply material.	<a href="#">stlstrnd.pdf</a>	-	Approved Manufacturer. Producers must prequalify every 2 years and be subject to random visits by CST.
Structural Steel Paints - Performance	Item 446 DMS-8101	Only suppliers on MPL list can be used. Project sample needed to verify against qualification formulation.	<a href="#">hicrnpnt.pdf</a>	-	Prequalified Material
Surface Finishes for Concrete	Item 427 DMS-8110	Producers of Class A Surface Finishes and Opaque Sealers must be on the MPL to supply. Opaque sealers need one sample per project for verification.	<a href="#">surffnsh.pdf</a>	-	Prequalified Material
Temporary Flexible Reflective Roadway Marker Tabs	Item 662 DMS-8242	Only materials listed in the MPL may be used. No sampling is required for projects, unless material quality is suspect.	<a href="#">tfrmt.pdf</a>	-	Approved Manufacturer
Temporary (Removable) Prefabricated Pavement Markings	Item 662 DMS-8241	Only materials listed in the MPL may be used. CST runs the QM/Warehouse program for this, and no sampling is required for projects, unless material quality is suspect.	<a href="#">trppm.pdf</a>	Pretested materials from warehouse come with Daily report of shipment	Prequalified Material/Warehouse housing
Timber Treating Plants	Item 492	Only suppliers on MPL list can be used.	<a href="#">timber.pdf</a>	Shipments from warehouse stock.	Approved Manufacturer and warehouse locations on the MPL are approved to supply from pre-tested/inspected stock.
Traffic Signal Controller Assembly	Item 680 DMS-11170	Only MPL materials may be used. Sample for TRF testing at rate of 10% minimum.	<a href="#">traffsca.pdf</a>	-	Prequalified Material.
Tray Cable	Item 621 DMS-11050	When materials are shown on the MPL, only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">riaes.pdf</a>	-	Prequalified Material, yearly renewal
Type A, B, or C Delineator Units	Item 658 DMS-8600	Type C delineator units must be on MPL for use. Type A, B, and C delineators need project sampling or arrive preapproved from warehouse stock.	<a href="#">typcdeln.pdf</a>	Pretested materials from warehouse come with Daily report of shipment	Prequalified Material/Warehouse housing

Product	References	QM, directions, requirements	Mtl. Prod. List	Warehouse	Program Description
Vehicle Signal Heads	Item 682 DMS 11120	Only MPL materials may be used. MPL materials need no additional testing unless material quality is suspect.	<a href="#">vshpre.pdf</a>	-	Prequalified Material
Vehicle Wire Loop Sealant	Item 688 DMS-6340	DMS-6340 describes material properties and QM program. Materials on MPL do not need testing unless material quality is questioned. Materials not on list need job sample.	<a href="#">loopwire.pdf</a>	-	Prequalified Material - annual renew